

EPSON RC+ 4.2.3 SP1 Release Notes

January 27, 2011

Thank you for using EPSON RC+ 4.2.3. This document contains the latest information for this release. Please read before using this software.

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Documentation

All RC+ manuals are in PDF format and are installed on the PC hard disk. These manuals are accessible from the RC+ environment Help menu.

Getting Started

Read the Getting Started chapter in the EPSON RC+ User's Guide. This chapter will refer you to the RC520 / RC420 Controller manuals Installation chapter. This contains information for initial connections and start up.

Upgrading from Previous Versions of EPSON RC+

You may install EPSON RC+ 4.2.3 without uninstalling the previous version. However, EPSON RC+ 4.2.3 runs on Windows XP, so you will need to upgrade your operating system to Windows XP first. Refer to the section *Upgrading from Windows 2000 to Windows XP* in this document.

Installing Service Pack 1

EPSON RC+ 4.2.3 Service Pack 1 is included on the current 4.2.3 installation CD. It is not automatically installed with the 4.2.3 installation program. It must be installed separately. If your system was configured at the factory, the service pack will already be installed.

How to verify if Service Pack 1 is installed

1. Run EPSON RC+.
2. Select Help | About.
3. If the service pack is installed, the version number will be 4.2.3 SP1.

How to install Service Pack 1

To install Service Pack 1:

1. Navigate to the \Service_Packs directory on the installation CD.
2. Run the file **erc423sp1.exe** and follow the on screen instructions.

How to uninstall Service Pack 1

To uninstall Service Pack 1:

1. Open Add / Remove Programs in the Windows Control Panel.
2. Select EPSON RC+ 4.0 and run it.
3. Select Repair.
4. This will re-install 4.2.3 and remove the changes made by the service pack installation.
5. If a previous service pack exists, you can add it now.

Installing on Windows Vista for offline development

EPSON RC+ 4.2.3 can be installed on a Windows Vista or Windows 7 system for offline development only. You can edit and compile your projects. You cannot install the SPEL drivers on a Windows Vista or Windows 7 system, so programs will not run. Also, if Vision Guide is installed, only VGA mode is supported.

Items fixed in EPSON RC+ 4.2.3 SP1

1. Fixed a problem where a crash could sometimes occur for the SPELVideo control if the display bits per pixel were less than 16 bits (such as 256 colors).
2. Fixed a problem for FbusIO_On. A crash was occurring after FbusIO_On was called more than 100 times.

What's new in EPSON RC+ 4.2.3

3. The Morphis / 84 frame grabber is now supported.

Items fixed in EPSON RC+ 4.2.3

1. Fixed a problem where sometimes the wrong sequence graphics were displayed after executing VSaveImage.
2. Fixed internal error 13 that occurred when a frame dependency object was deleted but a Code Reader was using the frame.
3. Fixed program editor memory leak. When the program was reformatted, such as after changing the case of a declared variable, unnecessary memory was being used.
4. Fixed internal error 11 (divide by zero) that sometimes occurred if the first vision sequence contained only an ImageOp object.
5. Fixed a problem where after deleting conveyors, you could not delete the last remaining conveyor.

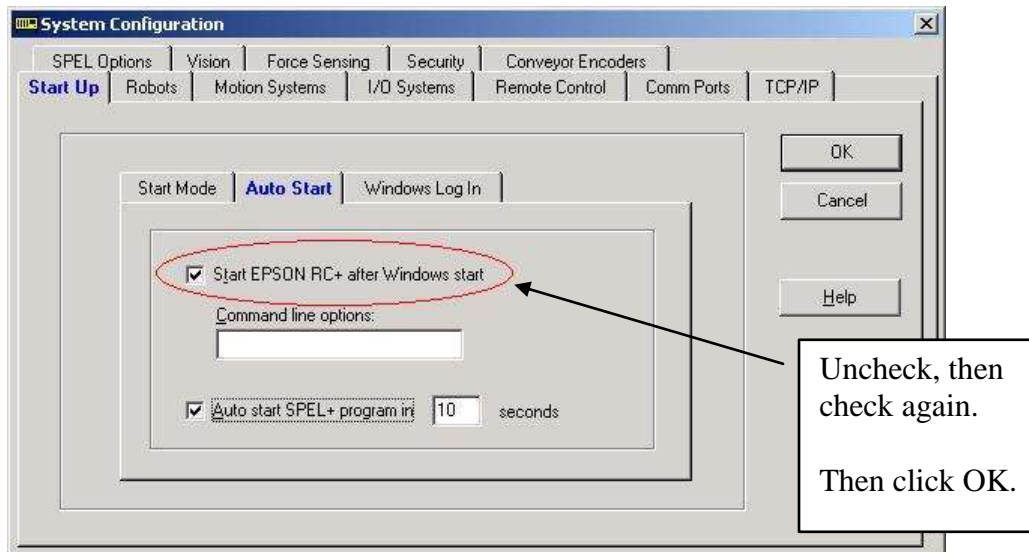
EPSON RC+ Upgrade

Auto start does not work after upgrading from 3.x versions

If RC+ was configured to auto start after Windows start, it will no longer start up automatically after upgrading to a 4.x version. This is easily fixed.

1. Run EPSON RC+. Click **Change Startup Mode**. Select **Program / Debug**, then click **OK**.
2. Select Setup->System Configuration. On the **Start Up** tab, click the **Auto Start** tab. Uncheck **Start EPSON RC+ after Windows start**. Then check it again.

Click **OK**.



3. Continue working in RC+ or exit the application.

Vision Guide

Changing frame grabber from Meteor to Morphis

If you are using a system that has a Meteor2 frame grabber and you are replacing it with a Morphis frame grabber, then follow these instructions:

1. Uninstall RC+.
2. Shutdown the PC.
3. Remove the Meteor2 frame grabber board.
4. Install the Morphis frame grabber board.
5. Install EPSON RC+ 4.2.3 and select the Morphis vision option.

Changing memory size for systems using Vision Guide

If you want to change the size of memory used on your system and you are using Vision Guide, you must do a repair installation after upgrading memory. If you do not repair the RC+ installation, Windows will not recognize the memory changes and the vision system will not work properly. Follow these steps to upgrade memory:

1. Shutdown the system.
2. Upgrade the memory.
3. Start the system.
4. Run the RC+ installer.
5. Select the repair option and continue.

The repair installation will uninstall the vision drivers, reboot the system, then reinstall the vision drivers using the new memory size.

VB Guide

RunDialog for Vision Guide can hang

When executing RunDialog for Vision Guide, your VB application can hang. Also, when running other dialogs, the title bar for the dialog flashes 3 times when the dialog is first displayed.

This is due to a setting in Windows XP that by default prevents background applications from taking focus. To turn off this feature, set the value for the following registry setting to 0: HKEY_CURRENT_USER\ControlPanel\Desktop\ForegroundLockTimeout. Then, reboot Windows.

Upgrading from 3.x versions

After upgrading to EPSON RC+ 4.2.3 from 3.x versions, you must upgrade your SPELCom and SPELVideo controls in your VB projects that use VB Guide.

Follow these steps:

1. Open your VB project.
2. Select Components from the Project menu.
3. Check the EPSON SPELCom 4.0 ActiveX Control and EPSON SPELVideo 4.0 Active X Control (if required) and click OK.
4. For every form that has a SPELCom or SPELVideo control, delete the control, then replace it with the new control from the tool box.
5. Select Components from the Project menu.
6. Uncheck EPSON SPELCom 3.0 ActiveX Control and SPELVideo 3.0 ActiveX Control.
7. Save changes.
8. Compile your project.

Offline Development

To edit Fieldbus labels offline

Before you can edit Fieldbus I/O labels on an offline system, you must copy the \EpsonRC\Fbusio\fbus.dat file from the online system to the same folder on the offline system.

Upgrading from Windows 2000 to Windows XP

To use EPSON RC+ with Windows XP Professional, you must purchase your own copy of Windows XP Professional and either upgrade from Windows 2000 or install a new copy of Windows XP.

You need a minimum of 256MB of memory installed to use Windows XP. 512MB of memory is recommended.

Windows XP is supported for RC420 and RC520 controllers using two types of SBC (single board computer) boards:

- SPI-6941-EPC (integrated mouse and keyboard connector)
- SPI-4400-LV

There are separate instructions below for each type of SBC board.

After upgrading the operating system to Windows XP, install EPSON RC+ 4.2.3.

Upgrading to Windows XP for SPI-6941 SBC board

To upgrade:

1. Boot Windows 2000.
Note: It is important to boot Windows 2000 first, then start the upgrade. Do not boot the XP installation CD to upgrade. The previous Windows 2000 installation may not be recognized.
2. If you are using an RC420 controller, connect a USB CD drive to one of the USB ports.
3. Insert the CD for XP Professional. The XP installer should automatically start.
4. Follow the instructions to upgrade.
5. During the upgrade you may be asked for the `viaide.sys` file. Navigate to the `C:\WINNT\System32\Drivers` directory and click Open.
6. During the upgrade, you may see a warning that the 8255xER PCI Adapter has not passed Windows Logo testing. Click Yes to continue.
7. During the upgrade, you may be asked for a path to the 8255xER PCI LAN driver directory. Insert the single board computer CD and navigate to the LAN directory for Windows XP and click Open.
8. The installation should continue until finished.
9. Install Windows XP SP3.
10. Install the latest Lynx3DM video driver. Use one of the following methods:
 - A. If your controller is connected to the Internet, you can instruct Windows to update the video driver. From the Windows Device Manager, right click on the Silicon Motion Lynx3DM video board and select Update Driver. When prompted to connect to Windows update, select "Yes, this time only" and continue with the update.
 - B. You can obtain the video driver from this website:
<http://www.siliconmotion.com.tw/en/en2/download2c.htm>.
Download and unzip the driver for XP, then update the driver from the Windows Device Manager. Right click on the Silicon Motion Lynx3DM video board and select Update Driver. Navigate to the folder where the driver files were unzipped and continue with the update.

11. Install EPSON RC+ 4.2.3 to upgrade your previous version of EPSON RC+.

Installing a new copy of Windows XP for SPI-6941 SBC board

To install a new copy of Windows XP:

1. Make sure you have backups of any files you need to keep. All files will be destroyed.
2. Boot the computer and access the BIOS menu.
3. Configure the computer to boot from CDROM if using an RC520 controller, or boot from USB-CDROM if using an RC420 controller.
4. If you are using an RC420 controller, connect a USB CD drive to one of the USB ports.
5. Insert the Windows XP CD and boot the computer. Press any key when prompted to boot from CD.
6. When prompted for the partition to use, delete all partitions.
7. Continue with the installation.
8. Install Windows XP SP3.
9. Install the LAN drivers for Windows XP from the single board computer CD that came with your controller.
10. Install the latest Lynx3DM video driver. Use one of the following methods:
 - A. If your controller is connected to the Internet, you can instruct Windows to update the video driver. From the Windows Device Manager, right click on the Silicon Motion Lynx3DM video board and select Update Driver. When prompted to connect to Windows update, select "Yes, this time only" and continue with the update.
 - B. You can obtain the video driver from this website:
<http://www.siliconmotion.com.tw/en/en2/download2c.htm>.
Download and unzip the driver for XP, then update the driver from the Windows Device Manager. Right click on the Silicon Motion Lynx3DM video board and select Update Driver. Navigate to the folder where the driver files were unzipped and continue with the update.

11. Install EPSON RC+ 4.2.3.
12. Add the SPEL MIB Resource from Control Panel - Add Hardware.

Upgrading to Windows XP for SPI-4400 SBC board

To upgrade:

1. Boot Windows 2000.
Note: It is important to boot Windows 2000 first, then start the upgrade. Do not boot the XP installation CD to upgrade. The previous Windows 2000 installation may not be recognized.
2. If you are using an RC420 controller, connect a USB CD drive to one of the USB ports.
3. Insert the CD for XP Professional. The XP installer should automatically start.
4. Follow the instructions to upgrade.
5. The installation should continue until finished.
6. Install Windows XP SP3.
7. Install EPSON RC+ 4.2.3 to upgrade your previous version of EPSON RC+.

Installing a new copy of Windows XP for SPI-4400 SBC board

To install a new copy of Windows XP:

1. Make sure you have backups of any files you need to keep. All files will be destroyed.
2. Boot the computer and access the BIOS menu.
3. Configure the computer to boot from CDROM if using an RC520 controller, or boot from USB-CDROM if using an RC420 controller.
4. If you are using an RC420 controller, connect a USB CD drive to one of the USB ports.
5. Insert the Windows XP CD and boot the computer. Press any key when prompted to boot from CD.

6. When prompted for the partition to use, delete all partitions.
7. Continue with the installation.
8. Install Windows XP SP3.
9. Install EPSON RC+ 4.2.3.
10. Add the SPEL MIB Resource from Control Panel - Add Hardware.